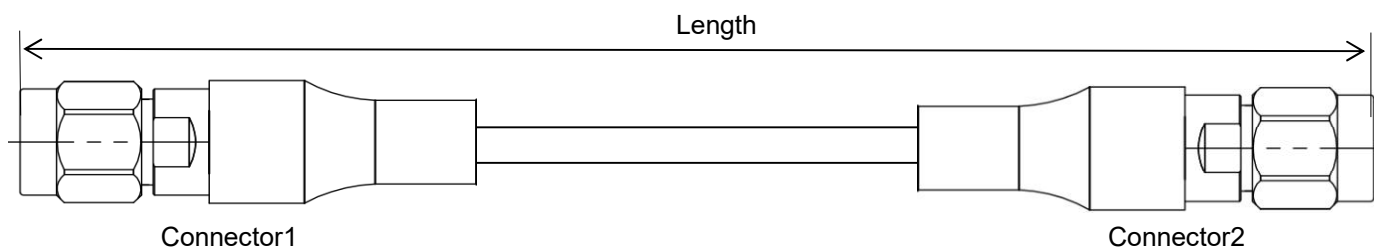


## Economical Low Loss Flexible Cable Assembly, Using EL350

DC-18 GHz, SMA Male to SMA Male

EL350-SMAMSMAM-L(L:Length)



- Length can be in meter or in inch etc, e.g, EL350-SMAMSMAM-1M. Standard length tolerance:  $\pm 1.5\%$ . Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

### Configuration

|                    |                            |                    |                            |
|--------------------|----------------------------|--------------------|----------------------------|
| <b>Connector 1</b> | SMA male                   | <b>Connector 2</b> | SMA male                   |
| Body               | Passivated stainless steel | Body               | Passivated stainless steel |
| Center Contact     | Gold plated brass          | Center Contact     | Gold plated brass          |
| <b>Cable Type</b>  | EL350                      |                    |                            |

### Cable Construction

| No. | Construction     | Size (mm) | Materials                       |
|-----|------------------|-----------|---------------------------------|
| 1   | Center Conductor | 0.94      | Solid silver plated copper      |
| 2   | Dielectric       | 2.75      | Low density PTFE                |
| 3   | Outer Conductor  | 2.80      | Aluminum foil wrap              |
| 4   | Outer Shield     | 3.20      | Silver-plated copper wire braid |
| 5   | Jacket           | 3.50      | FEP                             |



### Electrical

|                                |                      |
|--------------------------------|----------------------|
| Frequency                      | DC-18 GHz            |
| Impedance                      | 50 $\Omega$          |
| VSWR Max                       | 1.25                 |
| IL Max(1 meter assembly)       | 2.3dB                |
| *Mechanical Phase Stability    | $< \pm 8^\circ$      |
| Amplitude Stability vs Shaking | $< \pm 0.1\text{dB}$ |

### Mechanical & Environmental

|                              |                         |
|------------------------------|-------------------------|
| Min.Bending Radius Static    | 14mm                    |
| Min. Bending Radius Repeated | 35mm                    |
| Velocity of Propagation      | 76%                     |
| Temperature(Operation)       | -50~85 $^\circ\text{C}$ |
| Temperature(Storage)         | -60~85 $^\circ\text{C}$ |

\* Wrap the cable 360 degree around a mandrel whose radius is ten times of the cable jacket size.

## Bulk Cable Attenuation(Typical@25℃) & Power(VSWR=1.0; 40℃; Sea level)

|  |       |       |       |       |       |            |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|------------|-------|-------|-------|-------|-------|
| Frequency MHz  | 300   | 700   | 1000  | 2000  | 6000  | 8000       | 10000 | 12000 | 14000 | 16000 | 18000 |
| dB/100 Meter   | 20.9  | 32.1  | 38.6  | 55.1  | 97.6  | 113.6      | 128.0 | 141.1 | 153.3 | 164.8 | 175.7 |
| Avg.Power kW   | 0.850 | 0.553 | 0.461 | 0.323 | 0.182 | 0.156      | 0.139 | 0.126 | 0.116 | 0.108 | 0.101 |
| K1=1.191839  |       |       |       |       |       | K2=0.00088 |       |       |       |       |       |
| Attenuation at any frequency=[K1×SQRT(FMHz)]+[K2×FMHz] |       |       |       |       |       |            |       |       |       |       |       |

### Notes:

- 1) The above attenuation refers to typical loss of cable only, max loss is 1.1 times of typical loss. Insertion loss per connector is estimated as 0.04dB x SQRT Freq(GHz).
- 2) Power handling values are calculated based on cable properties. Power handling will vary based on connector type and actual VSWR of the cable assembly.

### Typical Test Data (EL350-SMAMSMAM-1M)

